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# Hardy Nut Trees

1918

J. F. Jones

NUT TREE SPECIALIST

Lancaster,  
Penna.



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WING to the pressure of other work preventing my getting to the work of revising my annual catalogue earlier, this, my 1918 edition, will be found to be made up of the 1917 material very largely. I have added some new illustrations, made direct from recent photographs however, and I shall endeavor to supplement this later, with additional matter in circular form, which will not delay longer the catalogue printing.

Sales during the fall season just closed, were very good, nearly doubling those fall 1916. Notwithstanding the disturbed conditions, due to the world war, indications now are that the demand for nut trees will greatly exceed the supply for spring, 1918, and it is advisable to order early and have the stock reserved for shipment when wanted. Owing to unfavorable weather conditions during the grafting season, spring 1917, the supply of trees of most varieties of English walnuts is short, also some other items.

I wish to thank my friends and patrons for past favors and solicit your orders with the assurance that the same will receive my careful attention, down to the smallest detail.

J. F. JONES, Lancaster, Pa.

## The War and the Food Question

Since our government has become unavoidably involved in the world war, it is our first duty to give liberally of our resources to the government, but it is the desire of the government and vital to our welfare, that industry proceed as usual as far as possible, and don't forget that the nut trees will grow quite as well while the conflict wages as they would in peace times, and, whether we plant one tree or one hundred, we are adding just that much to our national wealth and to our food supply of the future. All careful observers agree that the day of cheap food is gone, and it looks now like the beef steer was passing and that it will be necessary to provide meat substitutes much sooner than was formerly expected, because of the fact that it takes too much in food value to produce a pound of beef, or other meat product. Nuts can and do take the place of meat in the diet very nicely and with beneficial results, and, with the growing scarcity of meat, are bound to be in great demand and at good prices in the future.

## Prices of Nut Trees

It has been my aim to reduce the prices of my budded and grafted nut trees as fast as possible, as it is my desire especially, to popularize nut culture with the masses, as well as with the commercial grower of nuts, as far as possible, but owing to very greatly increased cost of growing, digging and packing nursery stock, I am not able to offer any reduction in prices for this season and it is quite probable that I will have to advance prices for next season to cover the extra cost of growing.





Bearing pecan orchard near Princess Anne, Md.

## Information of First Importance

The information of first importance to those desiring to plant Nut Trees, whether their wants be large or small, is what to plant and where to procure the trees. It is especially important that one get started right, otherwise much time is wasted and it not infrequently happens that those who plant worthless nut trees get the idea that they can't grow nuts and hesitate to make any further trials.

To those who know me, it is not necessary to mention my past, but I believe a little introductory information along this line is due those who desire to plant nut trees and who have not previously dealt with me. The growing of Nut Trees is my life work, and with over twenty years' experience in growing nut trees and specializing in the growing of budded and grafted trees for seventeen years, I am able to grow and deliver trees that not only please when delivered, but trees that make good!—trees that grow and bear fruit. There is no guess work either, as to what my budded or grafted trees will produce when they come into bearing, as is the case with seedling trees or trees of doubtful origin. The future of any nursery business depends upon the behavior of the stock sent out, and the steady and rapid growth of my business attests to the superiority of my stock, and to the superior service given.

Long experience and concentration of energy in the growing of nut trees exclusively, give me an obvious advantage over the general nurserymen. Owing to the methods employed in the propagation of nut trees being comparatively new and uncertain of results, except in the hands of an expert propagator, the general nurserymen are not propagating nut trees by budding or grafting, except in a very few instances.

The propagation of Nut Trees was begun by me in an experimental way, in my native state, Missouri, over twenty years ago. My first attempts at grafting these trees was not at all satisfactory, but to me the work was peculiarly fascinating and I managed to get enough grafts to grow to keep up my enthu-

siasm and encourage me to greater efforts. The only encouragment that I was able to get at the time, from authorities on propagation was, that the pecan was being budded with some degree of success on the Gulf Coast, but even there results were not satisfactory. At that time no attempts to bud or graft the shagbark or walnut had proven successful. Upon learning of the ring or annular budding which was at least giving some results on the pecan, in the lower south, I lost no time in trying it out. With only scions from old trees, this method was not adapt to the shagbark and I failed to get practical results with it on the walnut, as the work was done on the pecan in the lower south, but the following year I got a good stand of buds by wrapping with patch rubber as then used in patching bicycle tires. Later, however, I perfected the Patch Method and invented and patented the now well-known, Jones Patch Budder. This method of budding is now used by all the leading propagators of nut trees, both north and south. Along with budding, my modified cleft-graft method was perfected. This method, which is original with me, differs from any other previously in use, in that we cut the cleft in the stock, not splitting it, and the cleft is made to one side, instead of in the center of the stock. We formerly covered the grafts, after inserting and waxing, with a paper bag, but for several years now have waxed the grafts over entirely, for the most part, and used no bags or other covering, in nursery propagation. For the bagging idea, I am indebted to the California propagators. So far as I know, Mr. E. A. Riehl, Alton, Ill., was the first to seal or cover the grafts entirely with wax, in grafting nut trees.

It is not enough that a nurseryman be able to produce nursery trees. It must be apparent to the reader of these pages, that the nurseryman growing and disseminating nut trees, must have a practical knowledge of nut culture and of varieties and their adaption, if he is to give proper service. While it would be a very desirable qualification, a technical knowledge of fruit culture is not essential to the nurseryman growing fruit trees because of our common knowledge of fruit growing. From the beginning, I have taken great interest in nut culture and am a life member of both the Northern and Southern Nut Growers' Associations. I have traveled extensively in the interest of nut culture and investigating new and promising varieties of nuts, with a view of procuring the best varieties possible for propagation. In the search for, and selection of varieties for propagation, I have had the co-operation and help of Hon. Mason J. Niblack of the Indiana State Board of Agriculture, Dr. Robert T. Morris and Mr. T. P. Littlepage, ex-Presidents, and Dr. W. C. Deming, Secretary, of the Northern Nut Growers' Association; Messrs. J. G. Rush, W. C. Reed, J. F. Wilkinson and others. Mr. Rush is well known as a pioneer grower of English walnuts in Pennsylvania and originator of the Rush English Walnut, named and introduced by me.

I like to encourage those desiring to propagate nut trees and otherwise be helpful to the industry, but some of my followers who have been only partially successful in the propagation of nut trees, or who were not satisfied to await the development of an adequate stock of trees or sufficient propagating wood of the best varieties with which to grow trees, get out attractive catalogues and offer nut trees before they are in position to properly take care of such trade. As a result, trees are being bought and sent out which are not adapted to northern planting, to the detriment of the industry. To build up adequate mother blocks with scions from old bearing trees, is "up-hill" work at the best, and takes years of time in any event. I have here, so far as I know, the only extensive mother blocks of the improved northern varieties of the pecan, English and black walnuts and shagbarks. These mother blocks, which now comprise several thousand trees old enough to supply good scions in considerable quantity, have been built up at a very considerable expense. It must be remembered, in this connection, that varieties are confined to one tree, before having been propagated by budding or grafting, and the scions from these old, bearing trees, give very poor results as a rule. The trees planted in my mother blocks were grafted with scions taken direct from the original trees. Besides being as near to the original tree as it is possible to get, taking scions for propagation from these pedigreed, first generation trees, reduces the possibility of mistakes to the minimum. The propagation of trees from nursery stock, as is now generally done, removes the trees a generation from the original tree each year; also each year adds to the possibility of mistakes; besides, continued propagation from nursery trees is bound to greatly retard the bearing of the young trees.





Mildred Jones gathering the walnuts on a budded English Walnut tree in my test orchard—The tree was planted Spring, 1914—Photo Sept., 1916.

**Warning:** There are a few firms selling seedling nut trees at prices just a little lower than good budded or grafted stock can be bought. These people are taking advantage of the other fellow's skill in producing budded trees and, while they don't say they will deliver budded or grafted trees, they catalogue named varieties and otherwise lead the purchaser to believe he is getting budded or grafted trees. Several cases have come to my notice also, where agents for supposedly reliable firms have taken orders for budded English walnut trees and seedling trees of little or no value were delivered, at the advanced price.

**My Pennsylvania Grown Trees** succeed anywhere that nut trees can be grown. My soil and climatic conditions are peculiarly favorable for the growing of hardy nut trees, and I get here a very vigorous growth, yet a very stocky tree, and well ripened wood growth.

**Growing Superior Roots** is not left to chance here. Although nut trees make good roots here without special attention, we greatly improve the root system of the young trees by cutting the tap roots when the trees are one or two years old. This severing of the tap-root causes the trees to make more and better lateral roots

which make for easier and safer transplanting. Such trees are not now obtainable from any other nursery growing nut trees.

**My Nurseries are Located** three miles south of Lancaster, in a section noted for its productive soil. We have the main lines of The Pennsylvania and the Reading Rail Roads which insure the prompt delivery of shipments at nominal rates.

**Visitors are Always Welcome** and personal inspection of stock is invited. The Quarryville and Strasburg trolley cars, leaving Lancaster every half-hour, pass the nurseries.

**I Guarantee All Trees** sent to be well grown and of the size and quality specified, but claims for stock not satisfactory, must be made promptly upon receipt of the same.

**I Prune Trees** ready for planting, when so instructed, and wax over all cut surfaces with a special prepared, tough wax, applied hot.

**All Quotations**, unless otherwise specified, are F O. B. Lancaster. No charge for packing or delivery of stock to the forwarding companies.

**When to Plant:** My hardy Pennsylvania grown trees may be planted either spring or fall. Trees may be planted any time while dormant and when the ground is not frozen. Shipping season in the fall, October 20th to December 15th, and in the spring, March 15th to June 1st. Trees for late spring shipments are held in my cold cellars, perfectly dormant, till June 1st to 10th.

**Helps in Ordering:** For your convenience, order sheet and return envelopes are inclosed. Money may be sent in any way that is convenient. Postal Orders may be had at nearly any Post Office, or Bank Drafts at any bank.



Partial view of one of my blocks of budded pecan tree. Many of these trees are 6 to 8 feet high and only one season's growth from the bud.

## The Pecan

The pecan is the finest of our native American nuts and the most profitable to grow commercially. Unlike the other hickories, the pecan tree is of rapid growth and quickly makes a tree large enough to bear profitable crops of nuts. The improved varieties of the pecan sell for higher prices than any other nuts that reach our markets, the wholesale prices of the budded sorts running 45 to 65 cents per lb. and retailing as high as \$1.00 a pound. Some of the southern growers think the pecan can be grown profitably at 10 cents per lb., but the pecan being a native American nut and as yet little known, we have the world for a market and may reasonably expect the best budded sorts to sell for high prices for a good many years.

The pecan tree is the most cosmopolitan that we have, as regards its ability to adapt itself to various soils and climatic conditions. It is found growing naturally, as a forest tree, as far north as Davenport, Iowa, where the tree is sometimes exposed to winter temperatures of 40 degrees below zero, and from there in practically an unbroken chain along the Mississippi river, to the Gulf Coast, where the orange, fig and other sub-tropical fruits thrive. Its behavior on various soils is no less striking. The tree is growing and bearing good crops of pecans from the lower river bottoms which are occasionally flooded for several weeks at a time, up to at least 1500 feet elevation, and on practically all kinds of soil, from the clay and clay loams, to the lightest and poorest sandy soils.

Some of the finest and most productive northern varieties that have been discovered and which I am propagating by budding and grafting, have been found near the northern limit of the pecan's natural range, and as these trees will be unquestionably hardy and mature their fruit anywhere that our more common orchard fruits can be grown, the culture of this delicious and high priced nut can now be extended very profitably. The fruit of these northern varieties can and will, compete very successfully with the best southern product. Some of the northern varieties bear nuts, under northern conditions, nearly as large as the best southern varieties, and the northern varieties selected for propagation are always well filled and of better quality than the large fruited varieties now grown in the lower south.



On a recent motor trip through Maryland and Delaware, a number of bearing English walnut and pecan trees were seen. Near Aberdeen, Harford Co., Md., we saw perhaps the largest pecan tree in the east. This tree is 88 years old, is estimated to be over 100 feet high and has a spread of 110 feet. The tree has a trunk circumference of fourteen feet, four feet above the ground and eighteen feet near the ground line. Although this tree is a seedling, supposedly of southern parentage, it bears good crops of pecans which mature well, and are of good quality, as we found by sampling the nuts. This old tree is the parent of several other trees on the same and adjoining farms. Like the parent tree, these seedlings showed vigor and with few exceptions, were bearing good crops of nuts.

## Can We Compete with the South in Growing Pecans?

Some who are inclined to plant pecans, hesitate to do so because they think there is a possibility that the North can't compete with the South in the production of this nut. If it were possible to spread before the reader a panorama of the pecan forests and large trees growing in a wild state and bearing large crops of fine nuts in many cases, in Indiana, Illinois, Iowa and Missouri, and if it were possible to absorb, by this means, the enthusiasm that one who is familiar with conditions north and south, gets upon seeing these trees there would be no questioning the fact that we can compete very successfully with the South in growing pecans. There are larger wild pecan trees, and more of them growing together, in Indiana, Illinois and Kentucky, than in any given locality farther south. One of the largest and finest natural pecan groves that I have seen is in Henderson County, Ky. This grove covers 500 to 600 acres in a solid body and most of the trees are of very large size. A good many have trunk diameters of 3 to 5½ feet, and are estimated to be 150 to 190 feet high.

The pecans native to Indiana, must mature their crop in a season two months shorter than that in the lower South where the southern pecans are grown. In the lower South, the pecan trees vegetate the latter part of March and have till November to mature their fruit. The Indiana pecan vegetates in May and ripens its fruit in September and October. As some of the Indiana sorts ripen their fruit a month before frost, they will doubtless succeed considerably farther north without the nuts materially decreasing in size or quality. I have seen the southern varieties bearing and ripening well as far north as eastern Virginia, but the nuts were not as large as those of the same variety, when grown in the lower south. The ability of the southern pecans however, to adapt themselves to climates several weeks shorter than that of their natural growth, furnishes us an object lesson, and we may reasonably expect the Indiana varieties to succeed considerably north of where they originated and where they are now growing in a wild, or natural state. If the southern pecans will succeed 500 or 600 miles north of where they originated, as they are now doing, the northern varieties may reasonably be expected to succeed at least 150 to 200 miles north of where they originated, or 200 miles north of Terre Haute, Ind.

Growers in the lower south, with their long growing seasons, can grow the mammoth pecans which take a long season to properly mature. These extra large nuts are now selling for very high prices, as size in pecans, like other nuts and fruits, is of a decided advantage provided, of course, it is combined with the other good qualities. The biggest mistake that the southern growers made, however, was in planting these mammoth varieties exclusively, as they are now willing to admit. These mammoth varieties do not produce more than one-half the quantity of nuts on the average and are never as well filled or of as good quality, as are those varieties bearing medium to large size nuts. Although these large pecans are now bringing big prices, the southern growers fully realize that eventually the consumer of pecans is going to discriminate in favor of the smaller nuts of higher quality. Although other good qualities were very largely sacrificed for size, in the pecans now grown in the south, growers now know that size will be of secondary importance in the future, because each year adds to the quantity of nuts sold in the form of "Nut Meats" and in the not far distant future, they will be sold nearly altogether in this form, for the reason that machinery is being perfected which cracks the nuts in very much better shape than it can possibly be done by hand and at a fraction of the cost.



Budded northern pecan trees, in their third year, bearing nice clusters of nuts, in Mr. J. F. Wilkinson's grounds, Spencer Co., Ind. The tree shown in the illustration, reproduced from a photograph, is bearing three clusters of pecans,—ten nuts in all. Mr. Wilkinson had several of these young trees bear the past season, and reported after gathering the nuts, that they were well filled and of very good quality.

There is no longer any question as to the early bearing of the northern pecan. A number of my three year trees here produced staminate bloom spring 1917, although they have been cut back pretty severely each season for scions.



## Pecans for the Middle Belt

What is termed the Middle Belt, roughly speaking, is the section of country extending from the latitude of Atlanta, Ga., northward to central Kentucky and Virginia. This is a section of country as large as the southern area and one in which both the southern and northern varieties of the pecan may be expected to succeed. Southern varieties such as Stuart and Moneymaker, are already being grown in this area, but as the nuts of these southern varieties when grown in this area are considerably smaller than those of the same varieties when grown in the lower south, they are not equal to the Indiana varieties which are always well filled and in every way superior to the southern varieties. There is no doubt but that the Indiana and Kentucky varieties are the best for planting in the middle belt, as the nuts will surely not decrease in size, and there is at least a possibility that they will increase in size, when taken south, where the growing seasons are longer.

**Budded Trees Bear Early** and the productive varieties I am propagating may be depended upon to bear good and regular crops. In some cases, where buds or grafts have been set on strong stocks, trees have borne a few nuts three years after being grafted, and top-worked trees, in Indiana, are bearing nicely the third year in some cases.

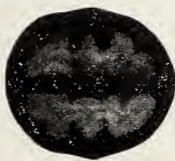
### Varieties of the Pecan

✓ **BUSSERON.** Originated in Knox County, Indiana. The Busseron is one of the best of the Indiana varieties. The nut is large, of good quality and of fine appearance. Mr. Niblack says the old Busseron tree has the greatest bearing record of any pecan tree in the state of Indiana, and annually bears large crops of the finest nuts.

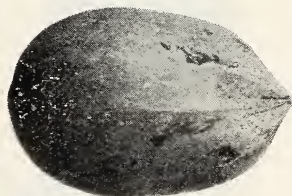
✓ **BUTTERICK.** Originated near Grayville, Illinois, in the Wabash Valley. The Butterick is one of the finest pecans that has been brought to my

notice. The nut is large and a real paper-shell. The kernel is full and plump and of excellent quality. The original tree bears very heavily, having produced 350 pounds of excellent pecans on the "off year," 1913, when the crop in general in that section

was very light. The Butterick combines large size, a real paper shell nut of high quality and a very vigorous and productive tree, making it highly desirable for market plantings as well as for home use.



Indiana Pecan



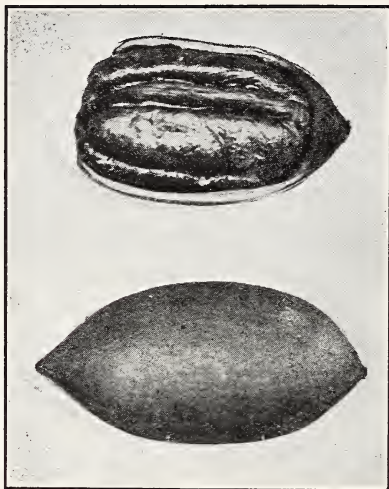
Butterick Pecan

✓ **GREENRIVER.** Originated in Henderson County, Kentucky. The original tree is very large and tall. The nut is of medium size; the kernel very plump and full, and easily extracted. The nut is a real paper-shell, and can't be beaten in quality. The tree is an excellent bearer. One of the best for home use.

✓ **INDIANA.** Thought to be a seedling of the Busseron, as the tree is younger and is located near the Busseron tree. With my present knowledge, if I were planting a commercial orchard, this variety would be my first choice. The nut is large, shell soft, kernel full and of very good quality. The original tree of the Indiana is the greatest bearer I have ever seen, either North or South, and very desirable for any purpose.

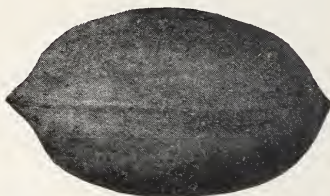
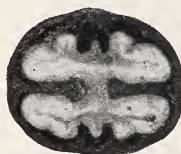
For prices of trees see page 16.





Niblack Pecan

## PECANS—Continued



Posey Pecan

**NIBLACK.** From Knox County, Ind. Named for Hon. Mason J. Niblack, of Vincennes, Ind. Nut medium to large; shell thin; kernel very plump and of excellent quality. Cracking quality the very best, the plump kernel coming out in perfect halves in all cases. One of the the most desirable varieties for any purpose.

**POSEY.** From Gibson County, Ind. One of the largest and finest of the Indiana pecans. The nut is a paper-shell and the kernels are very easily extracted. Quality very good.

For prices of trees see page 16.



Greenriver Pecan

"The stately Pecan and the sturdy Shagbark can be made to replace, North and South, the millions of poplars, willows and other 'bunches of leaves' which please the eye but render no valuable annual or final returns. The chief reason why this has not been done is because people have not thought about it."—Dr. R. T. Morris. (Dr. Morris is ex-president of the Northern Nut Growers' Association).



Busseron Pecan

"It is generally understood that the Pecan is essentially a southern tree, and it is, therefore, especially worth while to emphasize the fact, that its northern range carries it to southern Indiana, and that, in the valleys of the Wabash and its tributaries, there have been and are now being discovered varieties of a size, quality and productiveness which will make them successful rivals of the cultivated types now established in the South. There is no doubt that in the near future the Pecan will be found growing throughout New England and the more favored portions of New York, and that when this addition comes to our list of fruits, we shall have added what, in my estimation, is the king of nut fruits."

—Prof. John Craig.

## The English or Persian Walnut

The English walnut has been grown quite extensively in portions of California for a good many years, and, with the introduction of the hardy French varieties, Oregon and Washington were added to the list of Walnut-growing states. Now some of the finest orchards on the Pacific Coast are to be found in these states.

Although occasional trees of the English Walnut have been growing and fruiting well in portions of several eastern and northern states for many years, comparatively few attempts have been made to grow this nut in a commercial way, as attempts to propagate the trees by budding or grafting, until recently, have not been successful. Seedling trees, under our conditions, have proved very freakish and unreliable, as they are generally decidedly lacking in vigor and therefore in hardiness. Even when the trees were grown from seed nuts taken from known hardy and productive trees, such trees as proved to be vigorous and hardy, were not to be depended upon to bear satisfactorily or to produce nuts of large size and of good quality.

So far as I know, I was the first to propagate the English walnut successfully east of the Rocky Mountains, and the first to use our native black walnut as a stock on which to bud and graft the English varieties in nursery propagation. The results being obtained are very gratifying and I look forward with confidence to a growing and very profitable walnut industry in the eastern states.



### THE HARDY FRENCH WALNUTS

On a motor trip through Western New York and Ontario in September, 1915, we saw several fine bearing trees of these strains. At St. Catharines, Ontario, we saw a fine tree of the Franquette which was bearing a very heavy crop of very fine walnuts. There is also a fine tree of Franquette growing on Mr. John Garretson's farm in Adams County, Pa. This tree was grafted upon black walnut by Mr. Garretson's father 19 years ago, with scions obtained from California. This tree bears good and regular crops of very fine walnuts. The Mayette and Franquette are fully as hardy here as any that we have. The Mayette has borne here and the walnuts are fully as large and fine as the best California product and the finest walnuts that were ever grown in this locality.

From a photo showing a portion of the lower limbs of a bearing English walnut tree growing in the city of Lancaster, Pa.





English walnut trees growing along the roadside, Lancaster Co., Pa. These trees bear annually several bushels of excellent nuts and without care or attention, the land being grazed by cattle.

## Where the English Walnut May be Grown

We find the English walnut already growing successfully in several eastern and northern states besides Pennsylvania. It is found growing and fruiting in portions of New York, Ohio, Michigan, Connecticut, Massachusetts, New Jersey, Maryland, Delaware and Virginia; also in portions of North and South Carolina, Georgia and Alabama. For the most part, these trees are found only as isolated specimens, or at least only a few trees in any given locality, but there are a few exceptions, as in portions of New York, Pennsylvania, New Jersey and Maryland, where an occasional orchard, usually small in extent, has been planted out. The largest bearing orchard, of which information has reached me, is near Avon, N. Y. This orchard contains 225 trees planted on eleven acres. The elevated portions of the states to the south of us, from Virginia south and westward, are also admirably adapted to the English walnut.

A fairly safe rule in judging as to whether or not your climate and soil are suited to these trees is to plant only on land that will grow the apple or similar fruits successfully, yet where the climate is not too severe to grow and fruit the peach successfully. This has reference only to budded or grafted trees of known hardy and productive varieties, worked on the black walnut or other hardy and vigorous stocks, which are suited to the conditions where the trees are to be grown.

Where the English walnut is not grown and therefore little known, the general impression appears to be that the tree is suited only to warm climates. The tree does its best in bearing and in the quality of fruit produced in cool climates. Where the tree grows well and ripens its growth up well, it will stand quite low temperatures without injury. Here in Pennsylvania the tree is perfectly hardy, healthy and long-lived, although the winters are sometimes quite severe.



## ENGLISH or PERSIAN WALNUTS, Continued



Wiltz Mayette



Nebo



Vrooman Franquette

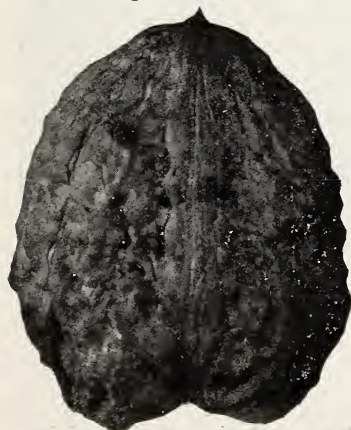
## Budded Trees Bear Early

Budded and grafted English walnut trees bear very early. We often have these trees bear in the nursery in their second year. Very young trees should not be allowed to bear heavily however, as the growth may be retarded and the tree dwarfed.

✓ **FRANQUETTE.** One of the finest of the French walnuts. Nut large and of attractive appearance; kernel large, plump and of an attractive light color; quality very good. My trees of this are of the Vrooman variety which is much the best of this type.

✓ **MAYETTE.** Also of French origin. Nut quite large, smooth and of attractive appearance. Kernel large, plump and of excellent quality. Considered the finest walnut known. My trees are of the Wiltz variety, which is decidedly the best variety of this type. Unlike the old Mayette, the Wiltz Mayette bears while very young.

✓ **NEBO.** Originated in this county. This I consider one of my best varieties. The nut is quite large; the kernel is full and of good quality. The original tree is estimated to be over 100 years old and is one of the largest in this section. The variety is a good bearer and I can recommend it for extensive planting.



Hall

✓ **HALL.** Originated in Erie County, Pa. Those wanting the very largest walnuts, should plant a tree or two of the Hall. Although the kernel does not fill the large shell completely, it is usually plump and of good quality, in this respect being superior to any other of the very large walnuts. The tree bears while very young and is a good and regular bearer.

**RUSH.** The Rush has the distinction of being the first eastern variety to be propagated. It was named by me for the originator and introduced in 1904. The nut is medium to large; quite smooth and attractive. The kernel is full and of good quality. The tree bears good and regular crops.

## The American Black Walnut

The planting of the improved varieties of the black walnut solves the problem of utilizing our waste land that cannot be cultivated. With meat growing scarcer and higher priced all the time, the demand for nuts is going to be far in excess of the supply in the future. It is conservatively estimated that if one plants, say, 1,000 trees of the improved varieties of the black walnut and gives them some attention till established, when in good bearing they will return a revenue of at least \$10.00 per tree in "Nut Meats" or \$10,000 a year. These trees need little or no attention and may be planted on rough land or along fences and ditches where it would not be practicable to plant trees requiring more attention. With the cracking machinery now being perfected, the work of cracking black walnuts and other nuts will be made easy in the future.

Mr. E. A. Riehl, the noted Illinois nut and fruit grower, is the first to grow black walnuts to any appreciable extent on grafted trees. Mr. Riehl has a number of Thomas trees now in bearing. He wrote me in December, 1915, that he had sold all of the Thomas meats at 80 cents per lb., and as he got 10 lbs. of meats to the bushel of Thomas walnuts, he considered their growing very profitable.

It does not require a very large black walnut tree to produce a bushel of nuts. Large trees may bear eight or ten bushels of nuts in a season.

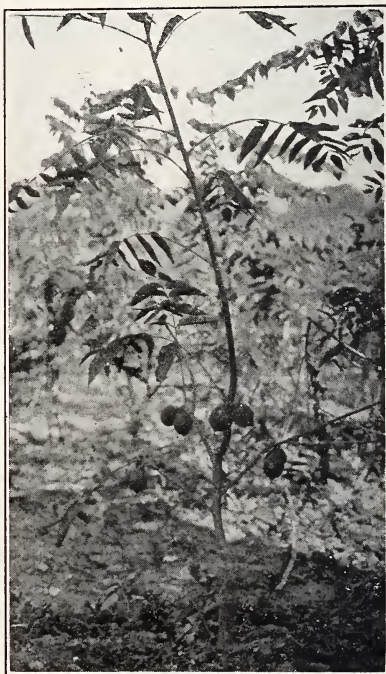
**THOMAS.** The Thomas is one of the finest varieties that I have been able to find. Nut very large; kernel large, full, and of excellent quality. The grafted trees bear early and abundantly.

**OHIO.** From Ohio. Named and introduced by me. Nut medium size; shell thin, kernel full and of excellent quality. Other walnuts may be cracked by machinery, under pressure, and the kernels removed in halves, but the Ohio can be cracked with a hammer and the kernels easily removed in halves.

**STABLER.** Originated in Maryland. A remarkable nut, fully equaling the Ohio in superb cracking quality. Tree a dwarfish, stocky grower and very ornamental.



Thomas



Black walnut tree bearing seven perfect nuts, seventeen months after it was grafted. This and several other bearing trees, same age, were seen and commented upon by visitors to my nursery the past season.



## The Filberts and Cob Nuts

The European Filberts succeed over a wide area and may be grown on almost any soil. They make a large bush or small tree and with their large, luxuriant foliage, are very ornamental. The filbert does well here and generally bears good crops of nuts which are fully equal to the imported filberts.

I have to offer this season only a limited supply of home grown plants of a few of the finest and most reliable varieties.

## The Chestnut

Being in the blight area I have quit propagating chestnuts here because of the danger of sending it out on young trees. Mr. E. A. Riehl, of Ill., is growing chestnut trees for me however and orders for these trees will be shipped direct from his nursery. He is isolated and a long distance from either chestnut or chinquapin growth and there is no danger of getting the blight on any trees he grows and sends out. Those living where the native wild chestnut grows and where the trees are blighting, should not be encouraged to plant chestnuts, but now that the wild chestnut trees are being destroyed by this disease and the crop of wild chestnuts eliminated, the growing of chestnuts offers a peculiarly attractive proposition to any one who is isolated from the wild growth, and their growing will be very profitable.

The following varieties are the finest by far ever originated and are as far ahead of the old Paragon or Sober Paragon as that variety was ahead of the white oak acorn! Paragon is a starchy nut, with little of the sweet chestnut flavor and is only good roasted or boiled, while the following sorts are all sweet and good for eating out of hand, either raw or cooked.

**FULLER.** Originated with Mr. Riehl from seed of Rochester. The nut is larger than Paragon, less pubescent and of more attractive appearance. The quality is superb, being sweet and of excellent flavor. The tree is a good grower and an early bearer.

**PROGRESS.** Nut about the size of Paragon. Also a seedling of Rochester. Of extra fine quality, being sweet and of excellent flavor. Tree a good and early bearer.

**BOONE.** A hybrid of the Japanese and American sweet chestnut. The tree is more dwarfish than Fuller or Progress and bears while quite small. The nut is sweet and good and the variety satisfactory in all respects.

## The Chinquapin

**RUSH HYBRID.** This is a hybrid of the bush chinquapin and the sweet chestnut. The tree is rather dwarfish and bears while quite young and small. The nut is quite large for a chinquapin, being nearly as large as our native chestnut and is of better quality than any chestnut. Introduced by me in 1904 and has become very popular and highly prized by those who bought trees from me, including Mr. Riehl. The nuts are borne singly in the burr and the burrs are borne in clusters after the habit of the chinquapin.



## The Shagbark Hickory

**SIERS HYBRID SHAGBARK.** This is a natural hybrid or cross between the shagbark and bitternut and combines the good qualities of both to a remarkable degree. The nut has little of the bitternut characteristics in appearance and none of its bitterness, being of very good quality. The nut is large, and the soft shell makes for ease in cracking and extracting the kernel. The tree, unlike the shagbark, is of very rapid growth. This is a very desirable nut and I predict for it a splendid future. While the pure shagbarks grow six or eight inches in a season the Siers may grow that many feet. Prices of trees same as pecans.

## The Hard Shell Almond

**RIDENHOWER ALMOND.** Originated in Illinois, where the tree is perfectly hardy and bears good crops. Nut medium size; quality very good. The Ridenhower almond will succeed anywhere that the peach can be grown and is desirable for home use.

## The Persimmon

Owing to considerable inquiry for persimmon trees I have worked up a stock of grafted trees of some remarkably fine varieties and have added these to my list. The persimmon is perfectly hardy and bears big crops of fruit every year.

**EARLY GOLDEN.** Originated in Illinois. Fruit large, of an attractive golden yellow color. The tree is a heavy annual bearer. As the Early Golden ripens early, before frost, it is especially valuable for market.

**JOSEPHINE.** Originated near Bluffton, Mo. The Josephine is considered to be the finest American persimmon yet known. The fruit is very large, bright yellow and of splendid quality. A young grafted tree of this variety in Adams County, Pa., bears large crops of very fine fruit every year.

## Prices of Trees, Either Budded or Grafted

	Each	Doz.
Pecan, Shagbark and English Walnut Trees, 1 to 1½ ft.....	\$1.00	\$10.00
" " " " " " 1½ to 2 ft.....	1.25	12.50
" " " " " " 2 to 3 ft.....	1.50	15.00
" " " " " " 3 to 4 ft.....	1.75	17.50
" " " " " " 4 to 5 ft.....	2.00	20.00
Pecan trees (Pecan trees only), 5 to 6 ft.....	2.25	22.50
" " " " " " 6 to 7 ft.....	2.50	25.00
Chestnut and Chinquapin trees, 1 year, first size.....	1.50	15.00
Black walnut trees, 1 to 1½ feet high.....	.60	6.00
" " " " 1½ to 2 feet high.....	.80	8.00
" " " " 2 to 3 feet high.....	1.00	10.00
" " " " 3 to 4 feet high.....	1.25	12.50
" " " " 4 to 5 feet high.....	1.50	15.00
" " " " 5 to 6 feet high.....	1.75	17.50
" " " " 6 to 8 feet high (Thomas only).....	2.00	20.00
Filberts, select bushes, 1½ to 2 feet high.....	.50	5.00
Hard shell Almonds, 4 to 5 feet high.....	.40	4.00
" " " " 5 to 6 feet high.....	.50	5.00
Persimmons, stocky trees, 1 to 2 feet high.....	.60	6.00
" " " " 2 to 3 feet high.....	.80	8.00
" " " " 3 to 5 feet high.....	1.00	10.00

Larger pecan trees, twice transplanted; prices on application. For information on the application of prices, see next page.

## Additional Information

**APPLICATION OF PRICES.** Six trees will be sold at the dozen rate and in assorted varieties, but must be made up of one general class, as 6 pecans and English walnuts, 6 black walnuts, 6 filberts, etc. For instance: One can order 6 pecan and English walnut trees, assorted varieties, 4 to 5 ft., for \$10.00. They have the privilege of adding to this, 3 black walnut, 3 filbert, 3 almond or 3 persimmon trees at the dozen prices for these items, in the sizes wanted.

**TREES BY PARCEL POST.** For information see order sheet inclosed herewith.

**DISTANCE FOR PLANTING.** Pecans and black walnuts 50 to 60 feet apart; English walnuts 40 to 50 feet apart; filberts and almonds, 15 to 20 feet apart; Persimmons, 20 to 25 feet apart.

Pecans, English and black walnuts do not need all of the room given them for 12 or 15 years, and fillers of smaller growing nut or fruit trees may be planted between them to good advantage; also any cultivated farm or garden crop may be planted between the trees, as they are little in the way of cultivation for several years.

**TOP WORKING SEEDLING TREES.** Those who have land with a natural growth of black walnuts, hickories or pecans, should write for a copy of my booklet on propagation and learn how to work these over to the improved varieties of the English and black walnuts, pecans, shagbarks, etc.



Average trees showing the effect of cutting the taproots. The two trees on the left are budded pecans. The third tree is a grafted walnut, while the fourth is a budded walnut. Severing the taproot causes the young trees to develop more and better lateral roots and several smaller taproots are usually formed instead of one long taproot with few or no lateral roots.

## Planting and Care of Nut Trees

It is important that nut trees be handled and planted carefully to get the best results. Keep the roots moist and expose as little as possible to sun or wind in handling. The holes should be dug amply wide to accommodate the roots and a few inches deeper than the roots are long. No manure or other coarse material should be used in the holes about the roots. A few handfuls of bone meal or blood and bone, mixed with the soil about the roots, will do no harm and will give good results. Only good top soil should be used in filling the holes, and this **must be well firmed about the roots**, while the tree is being planted by tamping with the spade or shovel handle or a tamping stick with a smooth, rounded end, that will allow the earth to be well tamped and at the same time, not bruise the roots. Most failures in transplanting are due to the planter not firming the earth well about the roots of the tree or from using water in the holes as the trees are being planted. If water is used and the soil handled while wet, it will harden and shrink away from the roots in drying. For the same reason, trees should never be planted soon after a heavy rain, or at any time when the ground is very wet. If trees arrive when the ground is very wet, heel them in or put in the cellar till the ground is in condition to plant. If the ground is dry, so much the better for planting, and the trees may be watered after they are planted. Remove a shovel of earth on two sides of the tree, and a foot or more away; fill the holes with water and after this has soaked in, put the dirt back, leaving a loose mulch on top. If the clay is thrown out and away from the holes, and only top soil used in filling the holes,—taking this top soil from a circle surrounding the tree, when the tree is planted, it will be surrounded by a depression or basin a few inches below the surface level. This is a decided advantage, with such trees as the pecan, walnut and persimmon, as I have found by several years experience. These trees may be planted this way either spring or fall, and on any land not naturally wet. Trees planted in this way not only live better, but grow much faster, as the basin about the tree gathers both moisture and fertility during rains, and is eventually filled up with the most fertile soil. This method of planting is especially desirable where trees are to be grown without cultivation. It is possible, by this method of planting, supplemented with an annual mulch, to grow vigorous trees and profitable orchards easily and cheaply on rough, cheap land, that would be quickly ruined by erosion, if cultivated. By sowing sweet clover or other strong growing legumes, a plentiful supply of mulching material can be grown right where it is needed, and at the same time, the land improved and built up.

**NUT TREES MUST HAVE THE TOPS REDUCED** or cut back, either before or after planting. This forces an early and stronger growth and induces the formation of new feeding roots and the tree is well established in its new location much sooner. If the top over-balances the root system to any appreciable extent, the over-taxed roots will simply become exhausted and no new roots will form, with the result, that even though the tree may live, it will linger along several years before getting started. The top should be reduced one-third to one-half depending upon the size of the tree and its root system.

**TRAINING THE TREES.** A four or five foot tree, when cut back to two or two and a half feet, will usually throw out several strong shoots, and this is just what is wanted. These shoots, being low, induce a quicker and stronger root formation and a sturdier tree. The head of the tree will not be wanted so low, but all growth should be allowed to remain until the tree is well established. The most vigorous shoot may then be selected and trained to form the future tree. This can be trained up-right, by tying to the stub of the tree or to a stake. The tree should become well established in its new location by the end of the second growing season, when the surplus shoots should be removed and all of the sap thrown into the shoot selected to form the tree.



Value of nuts imported into the United States compiled by the Federal Department of Statistics:

1906	1907	1908	1909	1910	1911
\$7,228,607	\$9,315,891	\$9,563,742	\$8,549,997	\$12,775,196	\$14,265,572
1912	1913	1914	1915	1916	1917
\$15,626,484	\$13,508,307	\$19,727,249	\$16,819,799	\$20,170,471	\$32,865,014

The importations of nuts into the U. S. increased from a little over six million dollars in 1905, to nearly thirty-three millions in 1917. Nuts are now the largest single food item among our imports.

### JUST A FEW TESTIMONIALS

"The nut trees that I ordered of you arrived day before yesterday and we planted them yesterday. The trees came in fine condition and I never saw such big, nice roots before. They showed that pains had been taken in growing and digging them. The extra pecan tree is appreciated."

Signed—K. Ware Stone, Ashby, Mass., Nov. 21st, 1917.

"I have just moved to my summer home on the mountain and only recently saw the Pecan and English Walnut trees you sent me last fall. To say I am delighted, only mildly expresses my pleasure in having such fine specimens of nut trees as you sent me. The other trees I had bought from two southern nurseries look like walking canes compared to your heavy, stocky, well grown trees and they are growing just fine, after having stood the coldest winter we have had on the mountain in twenty years, being 8 below zero several times. While the severe cold killed some of my southern grown trees, yours are all living and budding out fine."

Signed—N. A. Kirven, Chattanooga, Tenn., May 23d, 1917.

Mr. Kirven also wrote on Oct. 28th, 1917 as follows: "The trees I got from you are growing fine on an elevation of 2100 feet, while those I got from two different southern nurseries are either winter-killed or making no growth to speak of, which convinces me of the fact that your trees are the only ones suitable for this elevation where the thermometer gets as low as 4 to 10 below zero."

"The pecan and walnut trees came and are planted. The trees were in splendid condition and the roots perfect."

Signed—(Rev.) Andrew S. Zimmerman, Newark, N. J.

"The trees you sent me are coming along in fine shape. I thank you for the extra tree."

Signed—J. J. Kelsey, Clinton, Conn., July 30th, 1917.

"The nut trees arrived in prime condition. You certainly filled my order with extra fine stock.\* \* \* I never received trees in as perfect condition before from any one as the ones you sent me."

Signed—Geo. Gifford, Hotel Collingwood, New York,

May 1st, 1917.

"The trees you shipped us a few days ago arrived in good condition. They are a nice lot of stock and should grow well."

Signed—(Prof.) F. S. Holmes, Maryland Experiment Station,  
College Park, Md., April 3rd, 1917.

